

(19) World Intellectual Property
Organization
International Bureau



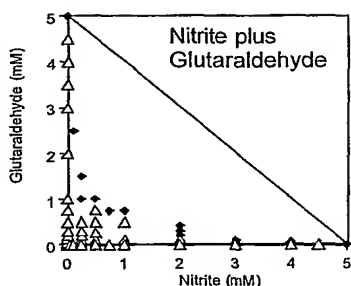
(43) International Publication Date
10 November 2005 (10.11.2005)

PCT

(10) International Publication Number
WO 2005/105116 A2

- (51) International Patent Classification⁷: **A61K 33/00**, 33/24, 31/275, 31/4164, 31/425
- (74) Agents: **RICHARDS, John et al.**; Ladas & Parry LLP, 26 West 61st Street, New York, NY 10023 (US).
- (21) International Application Number:
PCT/US2005/013594
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 21 April 2005 (21.04.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/832,116 26 April 2004 (26.04.2004) US
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicants (*for all designated States except US*): **CONO-COPHILLIPS COMPANY** [US/US]; 600 North Dairy Ashford, Houston, TX 77079 (US). **UTI LIMITED PARTNERSHIP** [CA/CA]; Suite 130, 3553 31st Street NW, Calgary, Alberta T2L 2K7 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **JENNEMAN, Gary, E.** [US/US]; 1209 Lariat Drive, Bartlesville, OK 74006 (US). **GREENE, Anne** [CA/CA]; 410 Jackson Place N.W., Calgary, Alberta T3B 2V3 (CA). **VOORDOUW, Gerrit** [CA/CA]; 2436 Capitol Hill Crescent N.W., Calgary, Alberta T2M 4C2 (CA).
- Published:**
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: INHIBITION OF BIOGENIC SULFIDE PRODUCTION VIA BIOCIDES AND METABOLIC INHIBITOR COMBINATION



(57) Abstract: Biogenic sulfide production is synergistically inhibited by treating sulfate-reducing bacteria (SRB) with a biocide and a metabolic inhibitor. The biocide directly kills a first portion of the SRB. The metabolic inhibitor inhibits sulfate-reducing growth of a second portion of the SRB without directly killing the second portion of the SRB. The treatment of SRB with both a biocide and a metabolic inhibitor provides effective biogenic sulfide inhibition at significantly lower concentrations than would be required if the biocide or metabolic inhibitor was used alone.